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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,820	02/18/2004	Shinobu Sasaki	1080.1135	6805
21171	7590	12/12/2007	EXAMINER	
STAAS & HALSEY LLP			JEN, MINGJEN	
SUITE 700			ART UNIT	PAPER NUMBER
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WASHINGTON, DC 20005			MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/779,820

Applicant(s)

SASAKI, SHINOBU

Examiner

Ian Jen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/11/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/18/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

KHOI H. TRAN
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 3/15/2004.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on October 11, 2007.
2. Claims 1-8 are pending in this action.
3. Claim 9 have been newly added.
4. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Election/Restrictions

5. Newly submitted claim 9 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly introduced claim 9 is directed to a method of transferring cartridges. Whereas, the original examined claim 1-8 are directed to a library device. Of claims 9 was originally presented, if would have been restricted.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 9 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

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matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulakowski et al (US Pat 6731455) in view of Hanaoka et al et al (US Pat 6144519).

As for claim 1, Kulakowski et al show a library device comprising: a cell array which consists of an array of multiple cells each of which contains one of multiple cartridges each containing a storage medium (Abstract, Fig 1, Fig 4, Col 5, lines 65 - Col 6, lines 30); media drives in which the cartridges are removably mounted and which access the storage medium contained in the cartridges (Fig 1, Fig 2; Fig 3, Col 4, lines 45 - Col 5, lines 20); a robot which transfers the cartridges between the cell array and the media drives (Fig 3, Fig 4, Col 5, lines 65 - Col 5, lines 30); the robot is equipped with a memory reader/writer which accesses the second memory installed in the cartridge received by the robot (Fig 1, Fig 3; Col 4, lines 10- 45); a control board which controls operation of the library device (Fig 2; Col 4, lines 45- Col 5, lines 20; Col 11, lines 20-45), being equipped with a first memory which stores control information needed to control the operation of the library device rewritably in a non-volatile manner (Fig 2; Col 4, lines 45- Col 5, lines 20; Col 11, lines 20-45), each of the cartridges contains the storage medium (Abstract, Fig 1) and comprise a second memory which stores information rewritably in a non-volatile manner (Fig 1, memory 24; Col 11, lines 20-45). Kulakowski et al shows that the diagnostic cartridge memory is capable of storing any type of information. However, it is silent as to the specific of the stored information on the disk being backup information and ID information for controlling the library.

Hanaoka et al et al shows backup and ID information which is the same as the control information is stored in a first memory (Column 2 , lines 38 - lines 48; See “ upon power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM”). Hanaoka et al et al teaches that storing backup controlling information and ID information is commonly well known.

It would have been obvious for one of ordinary skill in the art to have stored backup and ID information on Kulakowski et al diagnostic cartridge since it is commonly well known to have done so per Hanaoka et al et al. The modification would provide backup control information for the library system.

As for claim 2, Kulakowski et al does not show the back up information. Hanaoka et al et al further shows the first memory stores, as part of the control information, ID information which represents the library device; and upon power-up, the control board judges whether the ID information stored in the first memory represents the library device, (Column 2 , lines 38 - lines 48; See “ upon power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM”), and if the ID information stored in the first memory does not represent the library device, the robot takes the diagnostic cartridge out of the cell array, reads the backup information out of the second memory installed in the diagnostic cartridge and sends the backup information to the control board, and the control board writes the backup information received from the robot into the first memory (Column 2, lines 49 - lines 52; See “if not matched, the re-acquisition of the value of the cell address should be performed”).

It would have been obvious for one of ordinary skill in the art to have stored backup and ID information on Kulakowski et al diagnostic cartridge since it is commonly well known to

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have done so per Hanaoka et al et al. The modification would provide backup control information for the library system.

As for claim 5, Kulakowski et al shows the cartridges contain magnetic tape as the storage medium and the media drives access the magnetic tape contained in the cartridges (Abstract, Fig 1, Fig 4, Col 5, lines 65 - Col 6, lines 30; Fig 2; Fig 3, Col 4, lines 45 - Col 5, lines 20).

8. Claims 3,4,6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulakowski et al (US Pat 6731455) in view of Hanaoka et al et al (US Pat 6144519) and further in view of in view of Utsumi et al (US Pat 5967339).

As for claim 3, Kulakowski et al modified system does not show a serial label and information exchange between first and second memory.

Utsumi et al shows the library device comprises a serial label which contains ID information representing the library device and the robot comprises a first sensor which reads the serial label (Col 7, lines 20-40; Col 16, lines 45 - Col 17, lines 30). Hanaoka et al shows, upon power-up, the robot reads the serial label using the first sensor, extracts the ID information from the serial label, and sends the ID information to the control board, and the control board checks the ID information received from the robot against the ID information stored in the first memory, and thereby judges whether the ID information stored in the first memory represents this library device (Column 2 , lines 38 - lines 48; See "power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM"; Column 2, lines 49 - lines 52; See "if not matched, the re-acquisition of the value of the cell address should

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be performed by conducting a measurement thereof by use of the accessor as an operation to be performed when data exception occurs”).

It would have been obvious to one of ordinary skill in the art to modify the library device of Kulakowski et al and Hanaoka et al et al by adding the serial label of Utsumi et al in individual cartridges and in order to monitor data cartridge exchange and reading process between library device and robots.

As for claim 4, Kulakowski et al modified system does not show cell flag and cell flag sensor and upon power up, if two pieces of ID information do not match, the robot detects the location of the cell flags using the second sensor and send the location information about the cell flags to the control board, the control board finds location information about the cell containing the diagnostic cartridge based on the location information received form the robot, and the robot takes the diagnostic cartridge out of the cell containing the diagnostic cartridge by moving according the location information, found by the control board, about the cell containing the diagnostic cartridge.

Utsumi et shows the cell array has, over a plurality of locations, cell flags which are marks used to recognize locations of the plurality of cells composing the cell array, (Col 7, lines 20-40; Col 16, lines 45 - Col 17, lines 30; Abstract; Column 2, lines 9-11, See Fig. 30) the robot comprises a second sensor to detect the locations of the cell flags, (Column 16, lines 50 - Col 18, lines 20) and the robot takes the diagnostic cartridge out of the cell containing the diagnostic cartridge by moving according to the location information, found by the control board, about the cell containing the diagnostic cartridge (Column 16, lines 50 - Col 18, lines 20; Fig 3, cartridge 10).

Hanaoka et al shows, the control information, location information about the cell flags detected by the second sensor or location information about the cells corresponding to the cell flags detected by the second sensor (Column 15, lines 30 - lines 36 as the cell address translation table 82 stored in the accessor controller 28); and upon power-up, if the two pieces of ID information do not match, the robot detects the locations of the cell flags using the second sensor and sends the location information about the cell flags to the control board, the control board finds location information about the cell containing the diagnostic cartridge based on the location information received from the robot (Column 2 , lines 38 - lines 48) .

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al by providing the serial label of Utsumi et al in individual cartridges and in order to monitor data cartridge exchange and reading process between library device and robots.

As for claim 6, Kulakowski et al shows the second memory installed in the cartridge and the memory reader/writer installed on the robot (Fig 2; Col 4, lines 45- Col 5, lines 20; Col 11, lines 20-45; Fig 1, memory 24; Col 11, lines 20-45; Fig 1, Fig 3; Col 4, lines 10- 45). Kulakowski et al and Hanaoka et al does not show the wireless communication between the cartridge and robot.

Utsumi et al shows show the wireless communication between the cartridge and robot (Col 17, lines 5 - 60).

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al by providing the wireless photo sensor of Utsumi et al in order to provide efficient cartridge information reading.

As for claim 7, Kulakowski et al does not show the serial label. Utsumi et al shows the serial label is a barcode label which uses a barcode as the ID information about the library device and that the first sensor reads the barcode recorded on the barcode label using a one-dimensional array of light-sensitive devices;(Column 17, lines 40 - 65; Column 17, lines 13 - lines 16 as bar code label; Column 17, lines 61 -66 as master label 65).

It would have been obvious to one of ordinary skill in the art to provide the bar code label of Utsumi et al to the library device of Kulakowski et al and Hanaoka et al for providing feedback information from library device to controller.

As for claim 8, Kulakowski et al modified system does not show the first sensor combines the second sensor. Utsumi et al shows the first sensor combines the second sensor (Column 17, lines 5 - 66; both bar code reader(first sensor) and photosensor(second sensor) are both integrated into accessor 7).

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al et al by providing the integrated sensors of Utsumi et al in order to provide efficient cartridge information reading.

Response to Arguments

9. Applicant's arguments with respect to claim 1- 8 have been considered but are moot in view of the new ground(s) of rejection. The applicant argues that the cited prior art fails to cover the claimed limitation of one of the multiple cartridges is a diagnostic cartridge for the library

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device and the secondary memory installed in the diagnostic cartridge stores backup information.

The argument is moot since Solhejell shows a secondary memory and Utsumi et al shows a diagnostic cartridge. However, new grounds of reject are applied in this office action specifically address the argument from the applicant. Claims 1-8 are now rejected in a new ground of rejection, which respond to the applicant arguments.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gniewek (US Pat. 5,287,459) shows the library device comprises a plurality of magnetic cartridge, controller and cartridge select robot.

Munemoto et al (US Pat. 5,495,371) shows the library device comprises a plurality of magnetic cartridge, controller and cartridge select robot.

Ishikawa (US. Pat. 5,644,445) shows the library device comprises a plurality of magnetic cartridge, controller and cartridge select robot.

Saiba (US Pat. 5,883,864) shows the library device comprises ID and flag information for each cartridge.

Nishijo et al (US Pat. 6,161,058) shows the library device comprises a plurality of magnetic cartridge, controller and cartridge select robot.

Nishijo et al (US Pat. 6,230,075) shows the library device comprises a plurality of magnetic cartridge, controller and cartridge select robot.

Kanetsuku et al (US. Pat. 6,449,223) shows the library device comprises diagnostic cell

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Goodman et al (US. Pat 6,943,976) shows the library device comprises non volatile memory to store ID information.

Goodman et al (US. Pat 7,039,924) shows the library device comprise bar code scanner and non volatile memory.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian Jen whose telephone number is 571-270-3274. The examiner can normally be reached on Monday - Friday 8:00-5:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Smith can be reached on 571 -272- 6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/17/2007

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SUPERVISORY PATENT EXAMINER

